

REMARKS

Claims 33-41, 43-45, 47, 48 and 50-52 stand rejected, with claims 42, 46 and 49 objected to in the outstanding Official Action. Applicant has copied newly written claims 53-95 from U.S. Patent 6,204,906 (a copy of which is attached) for the purpose of provoking an interference with that patent. The present remarks will be divided into two portions: the first portion responding to the Official Action mailed July 5, 2001; and the second portion relating to the declaration of an interference with the '906 patent.

RESPONSE TO THE JULY 5, 2001 OFFICIAL ACTION

The Examiner's acknowledgment of applicant's claim for priority and receipt of the certified copies of the priority documents are very much appreciated. Additionally, the Examiner's consideration of the three previous Information Disclosure Statements submitted by applicant, all considered on June 28, 2001, by the Examiner is also appreciated.

While the Examiner does not specifically indicate that the second Preliminary Amendment filed January 11, 2001 has been entered, the rejection addresses claims 33-52 which were offered in that Preliminary Amendment, and therefore it is presumed to have been entered.

Claim 33 stands anticipated under 35 USC §102 in view of JP No. 06-003633. In order to determine whether the cited and applied prior art indeed anticipates applicant's claimed method, it is first necessary to understand the steps recited in that method. The first step in claim 33, i.e. step a), is "**providing a finished liquid crystal display having**

a finished display area larger than said desired area by an excess area." Claim 33 also recites in section b) the step of **"removing the excess area from the finished area"**

The Court of Appeals for the Federal Circuit has noted in the case of *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick*, 221 USPQ 481, 485 (Fed. Cir. 1984) that "[a]nticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim." Thus, in order to anticipate applicant's claimed invention, it is incumbent upon the Patent Office to establish that any anticipatory prior art recites both steps a) and b).

As discussed in applicant's specification and recited in applicant's claim 33, the invention is the method of manufacturing a custom made liquid crystal display having a desired display area, where the original manufactured LCD has **"a finished display area larger than said desired area."** The word "finished" as used in the claims and in the applicant's specification, to which there has been no objection under 35 USC §112 as being indefinite, clearly means a previously completed liquid crystal display. The "finished display" is further defined in applicant's claim 33 as having a pair of spaced-apart plates having peripheral edge regions bounding the finished area and further having liquid crystal material contained in the space between the plates and extending to all the peripheral edge regions, with an edge seal for sealing the peripheral regions to maintain the liquid crystal in the space.

Thus, applicant's method of removing "excess area" from the "finished area" by definition is the removal of a portion of the two plates forming the "finished liquid crystal display." Also by definition, this requires removing a portion of the contained liquid

crystal material and at least one of the edge seals. As will be seen, a detailed review of each of the cited prior art references will show that they do not disclose the existence of a finished liquid crystal display or that the finished liquid crystal display is acted upon in any fashion so as to create a desired area which is less than the finished area.

In the rejection of claim 33 under 35 USC §102 as being anticipated by Japanese Abstract No. 06-003633 (previously cited by the applicant), the Examiner contends that the Japanese Abstract discloses removing excess area from the finished area of the LCD to obtain the desired area of the custom-made display. While the Examiner appears to believe that the Japanese Abstract teaches removing a portion of a finished display, this is incorrect. The Abstract specifically states that "one substrate 2' is cut along a line **outside the seal member.**" Because the liquid crystal material is needed to define the "finished liquid crystal display," the removal of a portion of the glass substrate external to the finished area of the display does not change the area of the display, even if it does change the area of the glass substrate.

In other words, because the scribe line and the fracture line is outside the seal member, no portion of the actual finished liquid crystal display is removed and therefore there is no removal of excess display area from the finished area to obtain the desired area. As a result, the Japanese Abstract does not disclose either step a) or step b) of applicant's method and therefore cannot anticipate or render obvious the subject matter of claim 33.

Claims 33, 34, 40, 41, 50 and 52 stand rejected under 35 USC §102 as being anticipated by An (U.S. Patent 5,851,411). While the Examiner suggests that Figures

5-17 disclose the claimed method, the Examiner is believed to be misunderstanding the teaching of the An reference. Rather than showing lines upon which a large and previously finished display can be cut or broken to form a smaller display, An specifically teaches the method of combining smaller displays with thinner seals 105 to form a large display.

In the portion referred to by the Examiner, at col. 6, lines 36-44, it is clear that the liquid crystal material is added **after** the sizing of the plates and the provision of the edge seals ("attaching the first and the second substrates by heating and hardening the seal; injecting liquid crystal;" Col. 6, lines 40-41). As a result, the An method does not relate to resizing of a "finished display area."

In fact, the An reference teaches the creation of a larger display from a plurality of smaller displays. The problem of the seam between adjacent LCDs is addressed in An and the sections of the screen are identified as "when the LCD panels 103 manufactured by the above method are tiled." (Column 6, lines 48 and 49). "Tiling" of LCD panels is a well-known prior art method of combining small panels to make a large panel and is discussed in the Background of the Invention portion of the An reference (see column 1, lines 44-49).

Thus, the invention to which the An patent is addressed is the removal of a portion of the seal in a small finished display, so that it may be combined with other similar displays to make a larger final product. Thus, the "desired area" of display is larger than the original "finished" display (the direct opposite of the presently claimed invention). Furthermore, the display area is not actually cut or removed -- only the seal around the

periphery is removed. Thus, the actual liquid crystal display area remains the same, both before and after any cutting of the peripheral seal in the An reference. As a result, An fails to teach the method step of an LCD having a "finished display area larger than said desired area by an excess area," nor does it teach removing a portion of the finished display area in order to make a smaller custom-made display. Therefore, there is no basis for rejecting independent claim 33 and claims 34, 40, 41, 50 and 52 dependent thereon, as being anticipated by the An reference and any further rejection thereof is respectfully traversed.

Finally, although An is cited as supporting an anticipation rejection, the Examiner also discusses but does not apply Yasutake et al '058 in the last line of page 2 of the official action. Inquiry is made as to whether the Examiner intended to include Yasutake in the rejection and, if so, whether the rejection was to have been under §102 or §103.

Claims 33, 43, 47, 48 and 50 stand rejected under 35 USC §102 as being anticipated by Koyama (U.S. Patent 6,246,454). While the Examiner again contends that claim 33, and claims 43, 47, 48 and 50 dependent thereon, is identically disclosed in the Koyama reference, such is not believed to be correct. Koyama addresses the problem an LCD driver circuit being "placed in a harsher environment than the pixel TFTs 311 located inside the liquid crystal material." (Column 1, lines 40-42). Koyama specifically teaches that, in an attempt to solve the problem of external TFTs, a revised structure is provided in which the driver circuits, the signal line driver circuit and the scanning line driver circuits are all placed within the liquid crystal material, along with the pixel TFTs, thereby improving the long-term reliability of the LCD material.

The Examiner suggests that Figures 9 and 10 and column 5, lines 13-35 of Koyama discloses the method which is claimed in applicant's claim 33. However, a review of those two figures and the cited portion of column 5 indicates that this is incorrect. Koyama does not start with a "finished liquid crystal display" or any display having a "finished display area." As can be seen in Figure 5, **after** the two glass plates are bonded together (column 5, lines 13-22), the liquid crystal material is injected through a liquid crystal injection port, followed by sealing of the port (column 5, lines 25-27). Thus, the liquid crystal material was not present prior to the cutting action and therefore there could not have been a finished display.

It is presumed that the Examiner is suggesting that the cutting described at column 5, lines 29-31, and shown in Figures 9 and 10 as the "laser cut portion" is similar to applicant's claimed "removing" step. However, applicant's removing step removes "the excess area from the finished area." It is noted that the laser cut portion in Koyama is outside of seal 903 (therefor not the "finished display area" and substantially removed from the LCD material 904. As a result, the laser cut portion is not part of the "finished display area" referenced in applicant's "providing" step or in applicant's "removing" the excess area step. Quite clearly, Koyama contains no disclosure of either of the steps recited in applicant's independent claim 33 or claims 43, 47, 48 and 50 dependent thereon.

Claims 33 and 43 stand rejected under 35 USC §102 as being anticipated by Inoue (U.S. Patent 5,854,664). Specifically, the Examiner suggests that Figure 8 and column 10, lines 20-64, disclose applicant's claimed method. There is no disclosure that

Inoue's actions or operations are applied to a "finished liquid crystal display." In fact, Example 6 which appears at column 10, lines 20-64, teaches the creation of a liquid crystal display in which the two glass substrates are adhered to each other and an amount of liquid crystal material and resin is then provided into the space between the glass plates in an amount greater than that needed to cover the display area. The excess material protrudes outside the display area 8 through the guide path 9a (shown in Figure 8, but referred to at column 10, lines 38-41). After this loading of LCD step, the liquid crystal/resin material is cured and the unnecessary section of the panel (external to the display area) is removed ("The liquid crystal display panel was cut along the peripheral section of the display area, and the unnecessary section of the panel was removed." Column 10, lines 47-49).

Since the sequence of steps discussed in Example 6 in the Inoue patent relate to the initial creation of a liquid crystal display, it is not a method of manufacturing a custom-made display by operating upon a "finished liquid crystal display" with the method steps set out in applicant's claim 33.

Furthermore, the removal of the liquid crystal display panel is outside the finished liquid crystal display area and therefore cannot be a reduction of the liquid crystal display area. The actual liquid crystal display area is **the same** in Example 6 **before and after** the cutting operation (the external part that is removed does not comprise a portion of the display area). Thus, Inoue fails to teach either of the two method steps recited in applicant's independent claim 33 or claim 43 dependent thereon.

Claims 35-39, 41, 44, 45 and 51 stand rejected under 35 USC §103 as unpatentable over An in view of Yasutake (U.S. Patent 4,094,058). The above comments regarding the An reference are herein incorporated by reference inasmuch as these rejected claims depend ultimately from claim 33.

Applicant notes that Yasutake does not disclose steps a) and b) from applicant's claim 33 and therefore, even in combination with An, do not disclose the subject matter of applicant's claimed invention. Yasutake is a process for creating an initial group of liquid crystal displays by creating a plurality of smaller assemblies which are later filled with liquid crystal material. Yasutake does not involve creating a finished liquid crystal display and then cutting it apart to make smaller displays.

A review of Figure 9 of Yasutake shows that in each instance, the individual smaller liquid crystal cells have to be defined "to isolate each of said display patterns" as specified in step 32a. These plates are then clamped together "to form a plurality of liquid cells and process to seal" step 34a. In other words, it is necessary to know in advance how the finished liquid crystal display is going to be cut up before the liquid crystal material is added (step 39a).

It is observed that, in Yasutake, there cannot possibly be a "finished liquid crystal display" having a "finished display area" without liquid crystal material being present, and this material is not present until the end of the process. Moreover, applicant's claimed invention removes material from a "finished display area." Rather, Yasutake, before the liquid crystal display is finished, decides where and how the large display will be broken up, provides the appropriate seals which define separate liquid crystal display

areas and both before and after cutting the size of these "finished display areas" is not changed, i.e. the cutting step merely separates these finished display areas from each other but does not reduce the finished area from a larger area to a smaller area.

Moreover, the Examiner has failed to indicate how or why one of ordinary skill in the art would combine the An and Yasutake references, i.e. why would one combine the An "tiling" process of making a single large display by joining a group of smaller displays with the Yasutake reference which creates a number of smaller displays from a pair of larger substrates. The two references are mutually incompatible -- one making a large display out of a plurality of small displays and the other making a plurality of small displays out of a single large pair of substrates. Accordingly, any further rejection of claims 35-49, 41, 44, 45 and 51 under 35 USC §103 is respectfully traversed.

The Examiner's indication of allowable subject matter in claims 42, 46 and 49 is very much appreciated. However, it is not believed necessary to rewrite these claims in independent form at the present time, inasmuch as claim 33 recites two method steps which are not seen in any of the cited prior art references.

Applicant encloses herewith an information disclosure statement of prior art of which it is now aware. It is respectfully requested that this art be made of record in the present application.

As noted above, applicant's independent claim 33 and claims 34-52 dependent thereon are believed to clearly and patentably distinguish over the cited prior art references and any further rejection thereunder is respectfully traversed.

REQUEST FOR DECLARATION OF INTERFERENCE

Pursuant to 37 CFR §1.607, applicant respectfully requests a declaration of an interference involving the present applicant as senior party and the purported inventor of U.S. Patent 6,204,906 as junior party.

§1.607(a)(1) Identifying the Patent

The patent with which an interference should be declared is U.S. Patent 6,204,906 B1 issued March 20, 2001 to Lawrence E. Tannas, Jr., which was based upon application Serial No. 09/274,427, filed March 22, 1999 (hereinafter the '906 patent).

§1.607(a)(2) Presenting a Proposed Count

Applicant proposes that the interference go forward with the following proposed count:

A method of changing the physical shape of an electronic display, wherein the display comprises a front plate, a back plate, and a perimeter seal spacing apart the plates, and wherein image-generating medium is sealed to an area between the plates and within the borders of the perimeter seal, the method comprising the steps of:

cutting the display along desired dimensions resulting in a target display portion and an excess display portion, thereby breaking the perimeter seal of the display; and

applying a first seal between the plates along an exposed edge of the target display portion, the first seal creating a barrier to prevent the image-generating medium from escaping out of the area between the plates, the first seal comprising an adhesive having mechanical properties for preserving cell spacing between the front and back plates.

§1.607(a)(3) Identifying at Least One Claim in the Patent Corresponding to the Proposed Count

Claim 1 in the '906 patent corresponds identically with the proposed count and claims 2-43 correspond to the count in as much as they are presumed to be directed to the same invention as that of the count (if independent claims 4, 6, 9, 12, 15, 18, 23, 26, 28, 29, 35 and 36 were directed to separate inventions, the examiner of the application resulting in the '906 patent would have issued a restriction requirement and no such requirement exists in the file history of the '906 patent).

§1.607(a)(4) "Identifying at Least One Claim Already Pending in its Application That Corresponds to the Proposed Count"

Newly added claim 53 in the above-identified Amendment corresponds identically with the count and claims 33-52 and 54-95 correspond to the count and are directed towards the same invention.

§1.607(a)(5) "Applying the Terms of Any Application Claim . . . To The Disclosure of the Application"

Previously considered claims 33-52 correspond to the count as being directed to the same invention (the Examiner has not indicated any question as to support for these claims in the present specification). Newly written claims 53-95 in the present application correspond to the count, in that each of claims 54-95 either depends upon claim 53 which corresponds identically with the count or are independent method and apparatus claims claiming the same invention as claim 53.

Applicant applies the terms of the newly written application claims 53-95, which correspond identically with claims 1-43 in the '906 patent, with the disclosure in the present application in the separate Support for New Claims Chart attached hereto as Exhibit 1. Where there is any lack of support in the specification, applicant attaches evidence establishing that the information was well known to those of ordinary skill at or before the time of filing the application.

§1.607(a)(6)

The '906 patent issued on March 20, 2001 and the above-identified newly submitted claims 53-95 were submitted for consideration on the filing date of this Amendment, clearly less than one year after the issue date of the patent. Accordingly, the requirements of 35 USC §1.35(b) have been met.

Watson Should Be Designated as Senior Party

The '906 patent is based upon application Serial No. 09/274,427 which was filed on March 22, 1999. However, the present application (copying claims from the '906 patent) is a national phase entry of PCT/GB98/02586 filed on August 27, 1998 which itself claims priority from GB 9814577.4 filed July 7, 1998 and GB 9721804.4 filed October 15, 1997. As noted above, the PTO has confirmed receipt of the claim for priority and receipt of the certified copies of the priority documents in the outstanding official action (paper number 13). Applicant Watson should be accorded benefit of its earlier GB priority dates. The US PTO has constructively received the GB priority

documents. Should the Examiner require additional certified copies of these priority documents in order to perfect applicants benefit of British priority, notice to the undersigned is respectfully requested.

It is noted that both British priority dates, as well as the PCT International filing date, predate the filing date of the Tannas application (resulting in the '906 patent) by almost a year or more. Therefore, in any interference declared between the present pending application and the '906 patent, applicant Watson should be designated the senior party.

Having met each and every one of the requirements set out in Rule 607(a) for an applicant's request for an interference, the Interference between the senior party, Watson, and application No. 09/529,201, and the junior party, Tannas and USP 6,204,906 B1 should promptly be declared.

Conclusion

The pending and newly written claims clearly define over the prior art in that they disclose a method and apparatus for modifying an existing finished liquid crystal display to provide a smaller liquid crystal display without the need to custom design the smaller display from scratch. All of claims 33-95 cover this specific feature and are believed patentable over the cited prior art. Additionally, the application resulting in the '906 patent was filed long after the filing of the applicant's GB application priority documents and the subsequent International PCT application.

Accordingly, claims 33-95 are patentable to the present inventor Watson. Based upon the present record, Watson has priority based upon the GB applications over a year

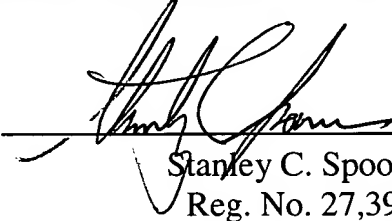
earlier than the filing date of the '906 patent. Watson should be designated as senior party in this interference.

Having responded to all objections and rejections in the outstanding official action, it is submitted that claims 33-95 are in condition for allowance and notice to that effect is respectfully requested. Additionally, in view of the identical nature of present claim 53 and claim 1 in the '906 patent, an interference should be promptly declared in order to correct the public record as to whom was the first inventor of the subject matter of the proposed count.

Respectfully submitted,

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Enclosures:

Substitute Power of Attorney
Copy of USP 6,204,906 B1
Information Disclosure Statement &
Refs.
Claim Chart re support for copied
claims

09/529,201

Claim Support Chart

Newly Added Claims 53-95 (Identical to '906 Patent Claims 1-43)	Corresponding Basis in Watson Application SN 09/529,201
<p>①</p> <p>53. A method of changing the physical shape of an electronic display, wherein the display comprises a front plate, a back plate, and a perimeter seal spacing apart the plates, and wherein image-generating medium is sealed to an area between the plates and within the borders of the perimeter seal, the method comprising the steps of:</p> <p>cutting the display along desired dimensions resulting in a target display portion and an excess display portion, thereby breaking the perimeter seal of the display; and</p> <p>applying a first seal between the plates along an exposed edge of the target display portion, the first seal creating a barrier to prevent the image-generating medium from escaping out of the area between the plates,</p> <p>the first seal comprising an adhesive having mechanical properties for preserving cell spacing between the front and back plates.</p>	<p>Method involves changing the shape by "removing an excess region of a pre-manufactured liquid crystal display by cutting the first and second plates to isolate the excess region of the first and second plates and to expose cut edges along the operative areas of the first and second plates." Page 2, lines 1-6</p> <p>The original display "comprises a liquid crystal sealed between first and second parallelly spaced transparent plates" Page 2, lines 20-21.</p> <p>"cutting the first and second plates to isolate the excess region of the first and second plates and to expose cut edges along the operative areas of the first and second plates." Page 2, lines 1-6</p> <p>"the cut edges of the glass plates 12 and 13 are sealed by applying a bead of ultra-violet curing liquid crystal display sealant adhesive, and then curing with an ultra-violet light source." Page 13, lines 5-7</p> <p>"The gap between the plates 12 and 13 is then sealed either by applying a bead of ultra-violet curing sealant adhesive and curing under ultra-violet light conditions, or applying a glass frit or using the laser to weld the plates 12 and 13 together." Page 15, lines 6-8. Both glass frit and laser welding have the inherent property of "preserving cell spacing between the front and back plates."</p>
<p>2</p> <p>54. The method as in claim 53, further comprising the step of applying a second humidity seal along the exposed edge over the first seal.</p>	<p>The 4th page of the Three Bond Technical Bulletin entitled "High Performance Sealant for Display Manufacturing Processes" shows the standard use of a "Moisture Barrier Sealant" 3027B Curable Resin (Attached as Exhibit A and dated April 1997)</p> <p>112</p>

Newly Added Claims 53-95 (Identical to '906 Patent Claims 1-43)	Corresponding Basis in Watson Application SN 09/529,201
<p>3 55. The method as in claim 54, wherein the second seal comprises silicone.</p>	<p>"Three Bond Products for the LCD Production" dated April 1997 (attached as Exhibit B) teaches that the Three Bond Resin TB 3027B and TB 1208B Silicone are both for Moisture Protection of LCDs. Obvious to use silicone for the second seal.</p>
<p>4 56. A method of changing the physical shape of an electronic display, wherein the display comprises a front plate, a back plate, and a perimeter seal spacing apart the plates, and wherein image-generating medium is contained in an area between the plates and within the borders of the perimeter seal, the method comprising the steps of:</p> <p>cutting the display along desired dimensions resulting in a target display portion and an excess display portion;</p> <p>applying a first seal between the plates along an exposed edge of the target display portion, the first seal creating a barrier to prevent the image-generating medium from escaping out of the area between the plates,</p> <p>the first seal comprising an adhesive having mechanical properties for preserving cell spacing between the front and back plates; and</p> <p>applying a second seal along the exposed edge, the second seal comprising silicone;</p> <p>wherein the silicone is substantially black-colored.</p>	<p>See claim 53</p> <p>See Claim 53</p> <p>See Claim 53</p> <p>See Claim 53</p> <p>See Claim 54 & 55</p> <p>Black silicone was well known in the art as was the need to prevent light from leaking into the cell from the sides. Obvious to use black silicone to seal the exposed edge of the cut.</p>
<p>5 57. The method as in claim 55, wherein the step of cutting the display further comprises the steps of</p> <p>cutting the front plate along a first dimension, and</p>	<p>Tannas claim doesn't require that first and second dimensions be different. Application discloses cutting where they are the same, just on opposite sides of the glass (Figures 2 & 3). Also discloses dimensions being different, i.e., "particularly if the cut edges of the transparent</p>

Newly Added Claims 53-95 (Identical to '906 Patent Claims 1-43)	Corresponding Basis in Watson Application SN 09/529,201
<p>cutting the back plate along a second dimension resulting in an exposed upper surface portion of the back plate to which the second seal attaches.</p>	<p>plates 12 and 13 do not coincide." Page 12, lines 7-8.</p> <p>Different dimensions are shown as conventional techniques in 1997 in Exhibits A & B</p>
<p>58. A method of changing the physical shape of an electronic display, wherein the display comprises a front plate, a back plant, [sic] and a perimeter seal spacing apart the plates, and wherein image-generating medium is contained in an area between the plates, and within the borders of the perimeter seal the method comprising the steps of:</p> <p>cutting the display along desired dimensions resulting in a target display portion and an excess display portion;</p> <p>applying a first seal between the plates along an exposed edge of the target display portion, the first seal creating a barrier to prevent the image-generating medium from escaping out of the area between the plates, the first seal comprising an adhesive having mechanical properties for preserving cell spacing between the front and back plates;</p> <p>applying a second seal along the exposed edge, the second seal comprising silicone; and</p> <p>scoring a polarizer attached to an upper surface of the front plate resulting in a target polarizer portion and an excess polarizer portion.</p>	<p>See Claim 53</p> <p>See Claim 53</p> <p>See claim 53</p> <p>See Claims 54 & 55</p> <p>"Patterned light polarizing substrates 15, 16 are respectively adhered to the outer surfaces of the glass plates 12, 13." Page 9, lines 6-7. Also, "a fine tooth saw may be used to cut through the vertical driver card 20 along the line X-X." Page 10, lines 9-10. Further, while the specification anticipates leaving the polarizer bonded in place and removed when the excess display region is removed, it also suggests "Optionally, a narrow strip of the light polarizing substrate 15, defined by the chained line 22 and a parallely-spaced</p>

Newly Added Claims 53-95 (Identical to '906 Patent Claims 1-43)	Corresponding Basis in Watson Application SN 09/529,201
	chained line 25 on the opposite side of the line X-X, is then removed." Page 10, lines 19-20.
<p>7</p> <p>59. The method as in claim 58, further comprising the step of removing the excess polarizer portion from the display before performing the cutting step.</p>	<p>"For example, a scalpel can be used to cut along the lines 22, 25 so that the narrow strip of the light polarizing substrate 15 can be peeled off to expose the glass plate 12 which is then cleaned to remove all traces of the adhesive that was used to bond the strip of the light polarizing substrate 15 to the glass plate 12. Page 10, line 22 – Page 11, line 1. "By fracturing the glass plates 12 and 13 along the line X-X, the excess region 23 of the liquid crystal display 10 can be removed to expose cut edges of the glass plates 12 and 13." Page 12, lines 1-2.</p>
<p>8</p> <p>60. The method as in claim 58, further comprising the step of applying a light mask over the second seal and up to an outer perimeter of a target display image area on the target display portion.</p>	<p>This is conventional as is disclosed in Tannas USP 6,204,906. See Tannas Col. 5, lines 28-36 and at Col 8, lines 2-7. "Typically, a COTS display 10 has a black mask in the plane of the image or image-generating medium." Col. 10, lines 42-44.</p> <p>Confirmation of prior art mask usage disclosed in An et al.(USP 5,851,411 at col. 6, ln 47-48.) cited by Examiner Duong in paper No. 13</p>
<p>9</p> <p>61. A method of changing the physical shape of an electronic display, wherein the display comprises a front plate, a back plate, and a perimeter seal spacing apart the plates, and wherein image-generating medium is contained in an area between the plates and within the borders of the perimeter seal, the method comprising the steps of:</p> <p>cutting the display along desired dimensions resulting in a target display portion and an excess display portion;</p> <p>applying a first seal between the plates along an exposed edge of the target display portion, the first seal creating a barrier to prevent the image-generating medium from escaping out of the area</p>	<p>See Claim 53</p> <p>See Claim 53</p>

Newly Added Claims 53-95 (Identical to '906 Patent Claims 1-43)	Corresponding Basis in Watson Application SN 09/529,201
<p>between the plates,</p> <p>the first seal comprising an adhesive having mechanical properties for preserving cell spacing between the front and back plates;</p> <p>applying a second seal along the exposed edge; and</p> <p>applying a light mask over the second seal and up to an outer perimeter of a target display image area on the target display portion.</p>	<p>See Claim 53</p> <p>See Claim 54</p> <p>See Claim 60</p>
<p>62. The method as in claim 61, further comprising the step of orienting the target display portion after the cutting step to prevent the image-generating medium from escaping from between the plates.</p>	<p>Obvious to one of ordinary skill to orient so as to avoid spilling LC material.</p> <p>Tannas contains no disclosure as to how he orients "to prevent the image generating medium from escaping."</p> <p>Watson found that capillary action rendered "orientation" unnecessary.</p>
<p>63. The method as in claim 55, wherein the display is a COTS AMLCD, and wherein the target display portion is substantially square.</p>	<p>COTS is the well known abbreviation of "Commercial Off The Shelf" and AMLCD is the well known abbreviation of "Active Matrix Liquid Crystal Display." "The process described above allow rectangular or square format liquid crystal displays, with reduced or increased operative areas, to be produced quickly and cheaply by reshaping standard commercial rectangular shaped displays which are currently produced in vast quantity at low cost and with high quality." Page 16, lines 6—9.</p>
<p>64. A method of changing the physical shape of an electronic display, wherein the display comprises a front plate and a back plate, the method comprising the steps of:</p> <p>cutting the display along desired dimensions resulting in a target display portion and an excess display portion, the target display portion comprising a polarizer attached to an upper surface of the front plate;</p>	<p>See Claim 53</p> <p>See Claim 53</p> <p>"In the case where a light polarizer is adhered to at least one of the plates," Page 5, line 16</p>

Newly Added Claims 53-95 (Identical to '906 Patent Claims 1-43)	Corresponding Basis in Watson Application SN 09/529,201
<p>applying a first seal along an exposed edge of the target display portion between the plates;</p> <p>applying a second seal over the exposed edge sealed by the first seal, the second seal comprising silicone;</p> <p>applying a silicone bead over an edge of the polarizer; and</p> <p>applying a third seal over the second seal, wherein the third seal extends onto the upper surface of the front plate and up to an edge of a target display image area.</p>	<p>See Claim 53</p> <p>See Claim 54</p> <p>The application of silicone over the edge of a polarizer would be obvious to seal the polarizer against moisture as such seals are known for LCDs as disclosed in Exhibit A.</p> <p>See Claim 60 re "light mask"</p>
<p>13 65. The method as in claim 64, wherein the display is a COTS LCD.</p>	<p>See Claim 63</p>
<p>14 66. The method as in claim 65, wherein the target display portion is substantially square.</p>	<p>See Claim 63</p>
<p>15 67. A method of changing the physical shape of a COTS LCD comprising the steps of:</p> <p>cutting the display along desired dimensions resulting in a target display portion and an excess display portion;</p> <p>applying a first seal along an exposed edge of the target display portion between the plates;</p> <p>applying a second seal over the first seal;</p> <p>replacing an original TAB on the target display portion with a new TAB; and</p> <p>electrically connecting the new TAB to corresponding electrical leads within the target</p>	<p>See Claim 63</p> <p>See Claim 53</p> <p>See Claim 53</p> <p>See Claim 54</p> <p>TAB is "Tape Automated Bonding" "The portion of the vertical driver card 20 for the excess region 23 is then removed by disconnecting the corresponding TABs 21 ..." page 10, lines 14-15. "Where more complex</p>

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display portion.	circuitry exists and the card drivers cannot simply be cut, the process described above can be limited to the technique for cutting the transparent plates, <u>the driver cards then being re-engineered or re-positioned using flexible circuit extensions.</u> " Page 16, lines 17-20. It would be obvious to connect the TABs to electrical leads in the target display
16 68. The method as in claim 67, wherein the target display portion further comprises a polarizer attached to an upper surface of the front plate, and further comprising the step of applying a silicone bead over an edge of the polarizer.	See Claims 58 & 59 re the polarizer attached to a glass sheet. See Claim 64 re "bead over an edge of the polarizer."
17 69. The method as in claim 66, wherein the target display portion is substantially square.	See Claim 63
18 70. An electronic display comprising: a substantially flat front plate having an upper surface and a lower surface; a substantially flat back plate having an upper surface and a lower surface, said back plate positioned behind said front plate and substantially parallel thereto; a perimeter seal located between said plates and forming an enclosed cell area defined by the lower surface of the front plate, the upper surface of the back plate, and the perimeter seal; an image-generating medium contained within said cell area; electrical conductors distributed throughout said image-generating medium; a substantially flat first polarizer attached to the	See Fig. 1, first plate 12 second plate 13, "first and second parallelly spaced transparent plates 12, 13." page 9, line 5. "ultra-violet cured adhesive seal 14." page 9, lines 5-6 "liquid crystal 11 trapped between first and second parallelly spaced transparent plates 12, 13 by an ultra-violet cured adhesive seal 14." Page 9, lines 4-6 "Very thin conductive layers 17, 18 are respectively coated over the inner surfaces of the glass plates 12, 13 . . ." page 9, lines 7-8. "Patterned light polarizing substrates 15, 16 are

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<p>upper surface of said front plate, said first polarizer having a perimeter;</p> <p>a second humidity seal positioned over the perimeter seal;</p> <p>a first silicone bead positioned over the perimeter of the first polarizer; and</p> <p>a third seal positioned over the perimeter seal, the second seal, and the first silicone bead, said third seal extending onto the upper surface of the front plate up to an outer edge of a display image area thereon.</p>	<p>respectively adhered to the outer surfaces of the glass plates 12, 13." page 9, lines 6-7.</p> <p>See Claim 54</p> <p>See Claim 64 re "bead over an edge of the polarizer."</p> <p>This is conventional. See Tannas Col. 5, lines 28-36 and at Col 8, lines 2-7. "Typically, a COTS display 10 has a black mask in the plane of the image or image-generating medium." Col. 10, lines 42-44 Also shown in Exhibit A.</p>
<p>19 71. The electronic display as in claim 70, further comprising a first silicone bead positioned over the perimeter of the first polarizer.</p>	<p>Claims identical limitation as in Claim 70.</p>
<p>20 72. The electronic display as in claim 70, wherein the second seal comprises silicone.</p>	<p>See claim 54</p>
<p>21 73. The electronic display as in claim 72, wherein the image-generating medium is liquid crystal material.</p>	<p>"liquid crystal 11 trapped between first and second parallelly spaced transparent plates 12, 13 by an ultra-violet cured adhesive seal 14." Page 9, lines 4-6</p>
<p>22 74. The electronic display as in claim 70, wherein the second seal comprises silicone, and ether comprising a substantially flat second polarizer attached to the lower surface of said back plate,</p> <p>said second polarizer having a perimeter, and wherein a second silicone bead is positioned over the perimeter of the second polarizer.</p>	<p>See Claim 72 re use of silicone.</p> <p>"Patterned light polarizing substrates 15, 16 are respectively adhered to the outer surfaces of the glass plates 12, 13." Page 9, lines 6-7.</p> <p>See Claim 64.</p>

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75. An electronic display comprising:

substantially flat front plate having an upper surface and a lower surface;

a substantially flat back plate having an upper surface and a lower surface, said back plate positioned behind said front plate and substantially parallel thereto;

a perimeter seal located between said plates and forming an enclosed cell area defined by the lower surface of the front plate, the upper surface of the back plate, and the perimeter seal;

an image-generating medium contained within said cell area;

electrical conductors distributed throughout said image-generating medium;

a substantially flat first polarizer attached to the upper surface of said front plate, said first polarizer having a perimeter;

a second seal positioned over the perimeter seal, the second seal comprising silicone;

a first silicone bead positioned over the perimeter of the first polarizer; and

a substantially flat second polarize [sic] attached to the lower surface of the back plate, the second polarizer having a perimeter, and

wherein a second silicone bead is positioned over the perimeter of the second polarizer; and

a third seal positioned over the perimeter seal, the second seal, and the first and second silicone beads, said third seal extending onto the upper

See Fig. 1, first plate 12

second plate 13, "first and second parallelly spaced transparent plates 12, 13." page 9, line 5.

"ultra-violet cured adhesive seal 14." page 9, lines 5-6

"liquid crystal 11 trapped between first and second parallelly spaced transparent plates 12, 13 by an ultra-violet cured adhesive seal 14." Page 9, lines 4-6

"Very thin conductive layers 17, 18 are respectively coated over the inner surfaces of the glass plates 12, 13 . . ." page 9, lines 7-8.

"Patterned light polarizing substrates 15, 16 are respectively adhered to the outer surfaces of the glass plates 12, 13." page 9, lines 6-7.

See Claim 54

See Claim 64 re "bead over an edge of the polarizer."

"Patterned light polarizing substrates 15, 16 are respectively adhered to the outer surfaces of the glass plates 12, 13." page 9, lines 6-7.

See Claim 64 re "bead over an edge of the polarizer."

This is conventional. See Tannas Col. 5, lines 28-36 and at Col 8, lines 2-7. "Typically, a COTS display 10 has a black mask in the plane

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surface of the front plate up to an edge of a display image area thereon, and extending onto the lower surface of the back plate up to an outer edge of a display image area thereon.	of the image or image-generating medium." Col. 10, lines 42-44
24 76. The electronic display as in claim 70, wherein the second seal comprises silicone.	Duplicate of Claim 72
25 77. The electronic display as in claim 76, wherein the image-generating material is liquid crystal material.	See Claim 73
26 78. A method of changing the physical shape of an electronic display, wherein the display comprises a front plate, a back plate, and a perimeter seal spacing apart the plates, and wherein image-generating medium is contained in an area between the plates and within the borders of the perimeter seal, the display further comprising electronic circuits for operating the display, the method comprising the steps: cutting the display along desired dimensions resulting in a target display portion and an excess display portion, thereby cutting at least some of the electronic circuits; and applying a first seal between the plates along an exposed edge of the target display portion; wherein the target display portion retains the basic functionality of the display.	See claim 70 "driver cards 19 & 20" page 9, line 19. "A laser, not shown, is then used to cut through glass plate 12 and glass plate 13" page 14, line 21. "the cut edges of the glass plates 12 and 13 are sealed by applying a bead of ultra-violet curing liquid crystal display sealant adhesive." page 13, lines 5-6 "This process provides a liquid crystal display 10 having a reduced operative region 24 without the need to commission the production of a custom display by a manufacturer." page 13, lines 7-9.
27 79. The method as in claim 78, further comprising the step of applying a second seal	See Claim 54.

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<p>along the exposed edge,</p> <p>said second seal comprising silicone.</p>	<p>See Claim 55.</p>
<p>28</p> <p>80. A method of changing the physical shape of an electronic display, wherein the display comprises a front plate, a back plate, a perimeter seal spacing apart the plates, and wherein image-generating medium is contained in an area between the plates and within the borders of the perimeter seal, the method comprising the steps of:</p> <p>cutting the display along desired dimensions resulting in a target display portion and an excess display portion, the desired dimensions not intersecting with the perimeter seal;</p> <p>applying a first seal between the plates along an exposed edge of the target display portion;</p> <p>applying a second seal along the exposed edge, the second seal comprising silicone;</p> <p>and applying a light mask over the second seal and up to an outer perimeter of a target display area on the target display portion;</p> <p>wherein the target display portion retains the basic functionality of the display.</p>	<p>See Claim 53</p> <p>"cutting the first and second plates to isolate the excess region of the first and second plates and to expose cut edges along the operative areas of the first and second plates." Page 2, lines 1-6 Tannas does not disclose cutting the display without intersecting the perimeter seal and therefore no support for this claim limitation.</p> <p>"the cut edges of the glass plates 12 and 13 are sealed by applying a bead of ultra-violet curing liquid crystal display sealant adhesive, and then curing with an ultra-violet light source." Page 13, lines 5-7</p> <p>See Claims 54 & 55.</p> <p>See Claim 60</p> <p>"This process provides a liquid crystal display 10 having a reduced operative region 24 without the need to commission the production of a custom display by a manufacturer." page 13, lines 7-9.</p>
<p>81. A method of changing the physical shape of an electronic display, wherein the display comprises front and back plates, a perimeter seal</p>	<p>See Claim 53</p>

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<p>spacing apart the plates, image-generating medium contained in an area between the plates and within the borders of the perimeter seal, and</p> <p>a plurality of films on an outer surface of at least one of the front and back plates, the method comprising the steps of:</p> <p>cutting the display along desired dimensions resulting in a target display portion and an excess display portion;</p> <p>removing excess portions of the plurality of films from the outer surface along the desired dimension; and</p> <p>applying a first seal between the plates along an exposed edge of the target display portion, the first seal creating a barrier to prevent the image-generating medium from escaping out of the area between the plates.</p>	<p>"Patterned light polarizing substrates 15, 16 are respectively adhered to the outer surfaces of the glass plates 12, 13." page 9, lines 6-7.</p> <p>See Claim 53</p> <p>See Claim 53 ?</p> <p>See Claim 53</p>
<p>82. The method of claim 81, wherein the step of removing the excess portions of the plurality of films comprises the steps of:</p> <p>scoring the plurality of films along the desired dimensions; and</p> <p>peeling off the excess portions prior to cutting the plates.</p>	<p>"For example, a scalpel can be used to cut along the lines 22, 25 so that the narrow strip of the light polarizing substrate can be peeled off to expose the glass plate 12 . . ." page 10, lines 22-23. this is accomplished prior to cutting the plate as discussed at page 11, beginning at line 3.</p>
<p>83. The method of claim 81, wherein the step of removing the excess portions of the plurality of films comprises the steps of:</p> <p>removing an excess polarizer portion from the outer surface; and</p> <p>removing one or more additional films from the outer surface, the additional films being selected from the group consisting of a filter, an image</p>	<p>See Claim 82</p> <p>It would be obvious to remove films present on the outer surface of the original display if they were not desired on the reduced sized display.</p>

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enhancement film, a retardation film, and a viewing angle enhancement film.	
<p>32 ✓ 84. The method of claim 81, wherein outer surfaces of the front and back plates each has a plurality of films thereon, and wherein the step of removing excess portions of the plurality of films comprises the steps of:</p> <p>removing excess portions of the plurality of films from the outer surface of the front plate; and</p> <p>removing excess portions of the plurality of films from the outer surface of the back plate.</p>	<p>"Patterned light polarizing substrates 15, 16 are respectively adhered to the outer surfaces of the glass plates 12, 13." Page 9, lines 6-7.</p> <p>"Optionally, a narrow strip of the light polarizing substrate 15, . . . is removed . . ." page 10, lines 19-20.</p> <p>"Again, optionally a narrow strip of the polarizing substrate 16 is removed . . ." page 11, line 11.</p>
<p>33 85. The method of claim 53, wherein the first seal comprises microspheres or beads mixed in the adhesive for preserving the cell spacing between the front and back plates.</p>	<p>See Claim 53</p> <p>NO SUPPORT</p>
<p>34 86. The method of claim 53, comprising the additional step of outgasing the electronic display after the step of applying the first seal to remove trapped gases and voids from the area between the plates.</p>	<p>"The method may also include the removing air voids within the liquid crystal by applying pressure to at least one of the plates." page 5, lines 20-21.</p>
<p>35 87. A method of changing the physical shape of an electronic display, wherein the display comprise a front plate and a back plate, the method comprising the steps of:</p> <p>cutting the display along desired dimensions resulting in a target display portion and an excess display portion [sic], the target display portion comprising a polarizer attached to an upper surface of the front plate;</p> <p>applying a first seal along an exposed edge of the</p>	<p>See Claim 53</p> <p>See Claim 53 (and Claim 58 regarding the attached polarizer).</p> <p>See Claim 53</p>

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<p>target display portion between the plates;</p> <p>applying a second seal over the exposed edge sealed by the first seal; and</p> <p>applying a third masking seal over the second seal for preventing back light from passing through the exposed edge.</p>	<p>See Claim 54</p> <p>See Claim 60</p>
<p>36 88. A method of changing the physical shape of an electronic display, wherein the display comprises a front plate, a back plate, and a film on at least one of the front and back plates, the method comprising the steps of:</p> <p>cutting the display along desired dimensions resulting in a target display portion and an excess display portion;</p> <p>removing at least a portion of the film; and</p> <p>applying a first seal along an exposed edge of the target display portion between the plates.</p>	<p>See Claim 53</p> <p>See Claim 53</p> <p>See Claim 59 - the polarizer can be in the form of a film.</p> <p>See Claim 53</p>
<p>37 89. The method of claim 88, wherein the film comprises a polarizer.</p>	<p>See Claim 59</p>
<p>38 90. The method of claim 88, wherein the step of removing at least a portion of the film comprises:</p> <p>scoring the film along the desired dimensions; and</p> <p>peeling off excess portions of the film before cutting the display.</p>	<p>See Claim 59</p> <p>See Claim 59</p>
<p>39 91. The method of claim 78, further comprising modifying the electronic circuits on the target display portion to retain the basic functionality of</p>	<p>"one of the vertical cards 20 is cut . . . This cut must be beyond any TAB 21 carrying connections to the operative region 24 that are to</p>

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the display.	be retained." page 10, lines 6-11.
40 92. The method of claim 91, wherein the electronic circuits comprise internal electronics, and wherein the modifying step comprises reestablishing continuity of the internal electronics.	"Where more complex circuitry exists and the card drivers cannot simply be cut, the process described above can be limited to the technique for cutting the transparent plates, the driver cards then being re-engineered or repositioned using flexible circuit extensions." page 16, lines 17-20.
41 93. The method of claim 78, wherein the electronic circuits comprise at least one of a circuit board, a TAB, and a COG disposed along an outer edge of the display, and wherein the step of cutting the display comprises cutting through at least one of the circuit board, TAB, or COG.	"A series of ribbon connectors or TABs 21 electrically interconnect the driver cards 19 and 20 with the various portions of the conductive layers 17 and 18" page 9, lines 18-20.
42 94. The method of claim 78, wherein at least some of the electronic circuits remain on the excess display portion after the cutting step.	"Furthermore, the laser may be used to cut through the driver card and polarizing substrate." page 15, lines 3-4
43 95. The method of claim 78, wherein the film comprises a film on each of the front and back plates, and wherein the removing step comprises removing at least a portion of the film on each of the front and back plates.	No antecedent basis for "the film" Assuming this is the polarizer film discussed in Claims 37 & 38, for removal on one surface, "Optionally, a narrow strip of the light polarizing substrate 15, . . . is removed . . ." page 10, lines 19-20. And for removal from the other surface, "Again, optionally a narrow strip of the polarizing substrate 16 is removed . . ." page 11, line 11.